

SEQUENCE LISTING

<110> Reiter, Robert E.
Witte, Owen N.
Saffran, Douglas C.
Jakobovits, Aya

#6

<120> PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF

<130> 30435.69USD2

<140> 09/854,811

<141> 2001-05-14

<150> 09/564,329

<151> 2000-05-03

<150> 09/359,326

<151> 1999-07-20

<150> 09/318,503

<151> 1999-05-25

<150> 09/251,835

<151> 1999-02-17

<150> 09/203,939

<151> 1998-12-02

<150> 09/038,261

<151> 1998-03-10

<150> 60/124,658

<151> 1999-03-16

<150> 60/120,536

<151> 1999-02-17

<150> 60/113,230

<151> 1998-12-21

<150> 60/074,675

<151> 1998-02-13

<150> 60/071,141

<151> 1998-01-12

<150> 60/228,816

<151> 1997-03-10

<160> 27

<170> PatentIn Ver. 2.0

<210> 1

<211> 998

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (543)

<223> any nucleotide (i.e., a, c, g or t)

<220>

<221> misc_feature

<222> (580)

<223> any nucleotide (i.e., a, c, g or t)

<220>

<221> misc_feature

<222> (584)

<223> any nucleotide (i.e., a, c, g or t)

<220>

<221> misc_feature

<222> (604)

<223> any nucleotide (i.e., a, c, g or t)

<220>

<221> misc_feature

<222> (608)

<223> any nucleotide (i.e., a, c, g or t)

<220>

<221> misc_feature

<222> (615)

<223> any nucleotide (i.e., a, c, g or t)

<220>

<221> misc_feature

<222> (636)

<223> any nucleotide (i.e., a, c, g or t)

<220>

<221> misc_feature

<222> (640)
<223> any nucleotide (i.e., a, c, g or t)

<220>
<221> misc_feature
<222> (646)
<223> any nucleotide (i.e., a, c, g or t)

<220>
<221> misc_feature
<222> (697)
<223> any nucleotide (i.e., a, c, g or t)

<220>
<221> misc_feature
<222> (926)
<223> any nucleotide (i.e., a, c, g or t)

<400> 1
agggagagggc agtgaccatg aaggctgtgc tgcttgccct gttgatggca ggcttggccc 60
tgcagccagg cactgccttg ctgtgctact cctgcaaagc ccaggtgagc aacgaggact 120
gcctgcaggt ggagaactgc acccagctgg gggagcagtg ctggaccgcg cgcacccgcg 180
cagttggcct cctgaccgtc atcagcaaag gctgcagctt gaactgctg gatgactcac 240
aggactacta cgtgggcaag aagaacatca cgtgctgtga caccgacttg tgcaacgcca 300
gcggggccca tgccctgcag cgggctgcg ccaccccttg gctgctccct gcactcggcc 360
tgctgctctg gggaccggtc cagctatagg ctctgggggg ccccgctgca gccacactg 420
ggtgtggtgc ccaggcctt tgtgcactc ctcacagaac ctggcccagt gggagcctgt 480
cctggttcct gaggcacatc ctaacgcaag tttgaccatg tatgtttgca ccccttttcc 540
ccnaaccctg accttcccat gggccttttc caggattccn accnggcaga tcagttttag 600
tganacanat ccgcntgcag atggcccctc caacnnttn tggtgntgtt tccatggccc 660
agcattttcc acccttaacc ctgtgttcag gcacttnttc ccccaggaag ccttccctgc 720
ccaccccat tattaattga gccagggttg gtccgtggtg tccccgcac ccagcagggg 780
acaggcaatc aggaggggcc agtaaaggct gagatgaagt ggactgagta gaactggagg 840
acaagagttg acgtgagttc ctgggagttt ccagagatgg ggcctggagg cctggaggaa 900
ggggccaggc ctcacatttg tgggntccc gaatggcagc ctgagcacag cgtaggccct 960
taataaacac ctgttgata agccaaaaaa aaaaaaaa 998

<210> 2
<211> 123
<212> PRT
<213> Homo sapiens

<220>
<221> PEPTIDE
<222> (50)..(64)

<220>
<221> PEPTIDE

<222> (71)..(82)

<220>

<221> PEPTIDE

<222> (67)..(81)

<400> 2

Met Lys Ala Val Leu Leu Ala Leu Leu Met Ala Gly Leu Ala Leu Gln
1 5 10 15

Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
20 25 30

Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
35 40 45

Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
50 55 60

Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly
85 90 95

Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
100 105 110

Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
115 120

<210> 3

<211> 441

<212> DNA

<213> Mus musculus

<400> 3

atgaagacag ttttttttat cctgctggcc acctacttag cctgcatcc aggtgctgct 60
ctgcagtgct attcatgcac agcacagatg aacaacagag actgtctgaa tgtacagaac 120
tgcagcctgg accagcacag ttgctttaca tcgcgcatcc gggccattgg actcgtgaca 180
gttatcagta agggctgcag ctacagtgt gaggatgact cggagaacta ctatttgggc 240
aagaagaaca tcacgtgctg ctactctgac ctgtgcaatg tcaacggggc ccacaccctg 300
aagccaccca ccaccctggg gctgctgacc gtgctctgca gcctgttgct gtggggctcc 360
agccgtctgt aggcctctggg agagcctacc atagcccgat tgtgaaggga tgagctgcac 420
tccacccac cccacacag g 441

<210> 4

<211> 123
 <212> PRT
 <213> Mus musculus

<400> 4
 Met Lys Thr Val Phe Phe Ile Leu Leu Ala Thr Tyr Leu Ala Leu His
 1 5 10 15
 Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn
 20 25 30
 Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
 35 40 45
 Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
 50 55 60
 Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
 65 70 75 80
 Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly
 85 90 95
 Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu
 100 105 110
 Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu
 115 120

<210> 5
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 5
 Met Lys Ile Phe Leu Pro Val Leu Leu Ala Ala Leu Leu Gly Val Glu
 1 5 10 15
 Arg Ala Ser Ser Leu Met Cys Phe Ser Cys Leu Asn Gln Lys Ser Asn
 20 25 30
 Leu Tyr Cys Leu Lys Pro Thr Ile Cys Ser Asp Gln Asp Asn Tyr Cys
 35 40 45
 Val Thr Val Ser Ala Ser Ala Gly Ile Gly Asn Leu Val Thr Phe Gly
 50 55 60

His Ser Leu Ser Lys Thr Cys Ser Pro Ala Cys Pro Ile Pro Glu Gly
65 70 75 80

Val Asn Val Gly Val Ala Ser Met Gly Ile Ser Cys Cys Gln Ser Phe
85 90 95

Leu Cys Asn Phe Ser Ala Ala Asp Gly Gly Leu Arg Ala Ser Val Thr
100 105 110

Leu Leu Gly Ala Gly Leu Leu Leu Ser Leu Leu Pro Ala Leu Leu Arg
115 120 125

Phe Gly Pro
130

<210> 6
<211> 123
<212> PRT
<213> Homo sapiens

<400> 6
Met Lys Ala Val Leu Leu Ala Leu Leu Met Ala Gly Leu Ala Leu Gln
1 5 10 15

Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
20 25 30

Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
35 40 45

Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
50 55 60

Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly
85 90 95

Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
100 105 110

Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
115 120

<210> 7

<211> 123
<212> PRT
<213> Mus musculus

<400> 7

Met Lys Thr Val Leu Phe Leu Leu Leu Ala Thr Tyr Leu Ala Leu His
1 5 10 15

Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn
20 25 30

Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
35 40 45

Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
50 55 60

Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly
85 90 95

Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu
100 105 110

Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu
115 120

<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 8
ttctcctgct ggccacctac

20

<210> 9
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 9
gcagctcatc ccttcacaat

20

<210> 10
<211> 408
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MONOCLONAL
ANTIBODY 1G8

<400> 10
tgcttcttcc tgatggcagt ggttatagga gtcaattcag aggttcagct gcagcagtct 60
ggggcagaac ttgtgaggtc aggggcctca gtcaagttgt cctgcacagc ttctggcttc 120
aacattaaag actactatat acactgggtg aatcagaggc ctgaccaggg cctggagtgg 180
attggatgga ttgatcctga gaatggtgac actgaatttg tcccgaagtt ccagggcaag 240
gccactatga ctgcagacat tttctccaac acagcctacc tgcacctcag cagcctgaca 300
tctgaagaca ctgccgtcta ttactgtaaa acgggggggtt tctggggcca agggactctg 360
gtcactgtct ctgcagccaa aacgacaccc ccactgtct atccactg 408

<210> 11
<211> 136
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MONOCLONAL
ANTIBODY 1G8

<400> 11
Cys Phe Phe Leu Met Ala Val Val Ile Gly Val Asn Ser Glu Val Gln
1 5 10 15
Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Ser Gly Ala Ser Val Lys
20 25 30
Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys Asp Tyr Tyr Ile His
35 40 45
Trp Val Asn Gln Arg Pro Asp Gln Gly Leu Glu Trp Ile Gly Trp Ile
50 55 60
Asp Pro Glu Asn Gly Asp Thr Glu Phe Val Pro Lys Phe Gln Gly Lys
65 70 75 80
Ala Thr Met Thr Ala Asp Ile Phe Ser Asn Thr Ala Tyr Leu His Leu

85

90

95

Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys Lys Thr Gly
 100 105 110

Gly Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr
 115 120 125

Thr Pro Pro Ser Val Tyr Pro Leu
 130 135

<210> 12

<211> 426

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MONOCLONAL
 ANTIBODY 4A10

<400> 12

ttggtagcaa cagcctcaga tgtccactcc caggtccaac tgcagcaacc tgggtctgaa 60
 ctggtgaggc ctggaacttc agtgaagctg tcctgcaagg cttctggcta tacattctcc 120
 agctactgga tgcactgggt gaagcagagg cctggacaag gccttgagtg gattggaaat 180
 attgaccctg gtagtggtta cactaactac gctgagaacc tcaagaccaa ggccacactg 240
 actgtagaca catcctccag cacagcctac atgcagctca gcagcctgac atctgaggac 300
 tctgcagtct attactgtac aagccgatct actatgatta cgacgggatt tgcttactgg 360
 ggccaaggga ctctggtcac tgtctctgca gctacaacaa cagcccatc tgtctatcca 420
 ctggcc 426

<210> 13

<211> 142

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MONOCLONAL
 ANTIBODY 4A10

<400> 13

Leu Val Ala Thr Ala Ser Asp Val His Ser Gln Val Gln Leu Gln Gln
 1 5 10 15

Pro Gly Ser Glu Leu Val Arg Pro Gly Thr Ser Val Lys Leu Ser Cys
 20 25 30

Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr Trp Met His Trp Val Lys

35	40	45
Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Asn Ile Asp Pro Gly		
50	55	60
Ser Gly Tyr Thr Asn Tyr Ala Glu Asn Leu Lys Thr Lys Ala Thr Leu		
65	70	75 80
Thr Val Asp Thr Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu		
	85	90 95
Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Thr Ser Arg Ser Thr Met		
100	105	110
Ile Thr Thr Gly Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val		
115	120	125
Ser Ala Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu Ala		
130	135	140

<210> 14
 <211> 453
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: MONOCLONAL
 ANTIBODY 2H9

<400> 14
 aatgacttcg ggttgagctg gggtttttatt attgttcttt taaaaggggt ccggagtgaa 60
 gtgaggcttg aggagtctgg aggaggctgg gtgcaacctg gaggatccat gaaactctcc 120
 tgtgtagcct ctggatttac tttcagtaat tactggatga cttgggtccg ccagtctcca 180
 gagaaggggc ttgagtgggt tgctgaaatt cgattgagat ctgaaaatta tgcaacacat 240
 tatgcgagat ctgtgaaagg gaaattcacc atctcaagag atgattccag aagtcgtctc 300
 tacctgcaaa tgaacaactt aagacctgaa gacagtggaa tttattactg tacagatggg 360
 ctgggacgac ctaactgggg ccaagggact ctggtcactg tctctgcagc caaaacgaca 420
 ccccatctg tctatccact ggccccttgt gta 453

<210> 15
 <211> 151
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: MONOCLONAL
 ANTIBODY 2H9

<400> 15

Asn Asp Phe Gly Leu Ser Trp Val Phe Ile Ile Val Leu Leu Lys Gly
1 5 10 15

Val Arg Ser Glu Val Arg Leu Glu Glu Ser Gly Gly Gly Trp Val Gln
20 25 30

Pro Gly Gly Ser Met Lys Leu Ser Cys Val Ala Ser Gly Phe Thr Phe
35 40 45

Ser Asn Tyr Trp Met Thr Trp Val Arg Gln Ser Pro Glu Lys Gly Leu
50 55 60

Glu Trp Val Ala Glu Ile Arg Leu Arg Ser Glu Asn Tyr Ala Thr His
65 70 75 80

Tyr Ala Glu Ser Val Lys Gly Lys Phe Thr Ile Ser Arg Asp Asp Ser
85 90 95

Arg Ser Arg Leu Tyr Leu Gln Met Asn Asn Leu Arg Pro Glu Asp Ser
100 105 110

Gly Ile Tyr Tyr Cys Thr Asp Gly Leu Gly Arg Pro Asn Trp Gly Gln
115 120 125

Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro Ser Val
130 135 140

Tyr Pro Leu Ala Pro Cys Val
145 150

<210> 16

<211> 15

<212> PRT

<213> Homo sapiens

<400> 16

Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
1 5 10 15

<210> 17

<211> 12

<212> PRT

<213> Homo sapiens

<400> 17
Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly Lys Lys
1 5 10

<210> 18
<211> 15
<212> PRT
<213> Homo sapiens

<400> 18
Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly Lys
1 5 10 15

<210> 19
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 19
tgcttgccct gttgatggca g 21

<210> 20
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 20
ccagagcagc aggccgagtg ca 22

<210> 21
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RT-PCR PRIMER

<400> 21
gggaattcgc acagccttca gggtc 25

<210> 22
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: RT-PCR PRIMER

 <400> 22
 ggagaattca tggcactgcc ctgctgtgct ac 32

 <210> 23
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: RT-PCR PRIMER

 <400> 23
 ggagaattcc taatgggccc cgctggcggt 30

 <210> 24
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: RT-PCR PRIMER

 <400> 24
 gggaagcttg cacagccttc agggtc 26

 <210> 25
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: RT-PCR PRIMER

 <220>
 <221> misc_feature
 <222> (18)
 <223> a or g

 <220>
 <221> misc_feature

<222> (22)
<223> g or c

<220>
<221> misc_feature
<222> (28)
<223> g or t

<220>
<221> misc_feature
<222> (31)
<223> a or c

<220>
<221> misc_feature
<222> (34)
<223> g or c

<400> 25
ggcgatatcc accatggrat gsagctgkgt matsctctt

39

<210> 26
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RT-PCR PRIMER

<220>
<221> misc_feature
<222> (11)
<223> c or t

<220>
<221> misc_feature
<222> (25)..(26)
<223> a or g

<400> 26
agggaattca yctccacaca caggrccag tggatagac

39

<210> 27
<211> 39
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: RT-PCR PRIMER

<220>

<221> misc_feature

<222> (17)

<223> a or g

<220>

<221> misc_feature

<222> (26)

<223> c or t

<220>

<221> misc_feature

<222> (33)

<223> g or t

<400> 27

ggggatatcc accatgract tcgggytgag ctkggtttt

39